

4352

## CERCLIS CORRECTION / UPDATE FORM

ORIGINAL  
(Red)

TO: Information Management Section (3HW14) DATE: 02/09/94  
FROM: Kevin J. Wood, SAM  
Site Assessment Section (3HW73)  
SITE: Old Hoechst and Foster Site  
ID#: VAD 988196994 DSN: VA-572

## A. CHANGE OF NAME, ADDRESS, OR OTHER IDENTIFYING INFORMATION (Explain.)

## B. ENTER NEW INFORMATION / CHANGE INFORMATION (Fill in appropriate spaces.)

Type of Action	Start Date	Completion Date	Lead (F or S)	Priority/Qualifier* (N, L, H, D, or G)	SIP Level** (1, 2, or 3)
PA		04/09/92		N	
SSI					
SIP					
ESI					

\* allowable codes are N, L, H, or D for PAs, SSIs, and SIPs; N or G (Prepare HRS Package) for ESIs

\*\* SIPs only

## C. MERGE / DELETE (Explain.)

## D. OTHER: CANCEL / HOLD / ETC. (Explain.)

entered 2/9/94  
V.D.rec'd 2/9/94  
+ assigned for  
entry



**EPA****POTENTIAL HAZARDOUS WASTE SITE IDENTIFICATION**REGION  
IIISITE NUMBER  
(Red)  
**ORIGINAL**

**NOTE:** The initial identification of a potential site or incident should not be interpreted as a finding of illegal activity or confirmation that an actual health or environmental threat exists. All identified sites will be assessed under the EPA's Hazardous Waste Site Enforcement and Response System to determine if a hazardous waste problem actually exists.

VAD 988196994

**A. SITE NAME**

NS318 OLD HOECHST AND FOSTER SITE

**B. STREET (or other identifier)**

5100 Bainbridge Boulevard

**C. CITY**

Chesapeake

**D. STATE**

VA

**E. ZIP CODE**

23320-25

**F. COUNTY NAME**

CHESAPEAKE 550

**G. OWNER/OPERATOR (if known)**

1. NAME

Huntsman Chemical Corporation

**2. TELEPHONE NUMBER**

(804) 494-2500

**H. TYPE OF OWNERSHIP (if known)**☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE ☐ 6. UNKNOWN**I. SITE DESCRIPTION**

The site is the location of an active chemical manufacturer. The site was inaccessible (entirely fenced).

**J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.)**

Elizabeth River Study

NS318

**K. DATE IDENTIFIED  
(month, day, & year)**

September 27, 1990

**L. SUMMARY OF POTENTIAL OR KNOWN PROBLEM**

In 1985, aerial photography identified a possible discharge at the edge of a lagoon near a channel in the wetland. Two other possible discharges from this property are identified as NS316 and NS317.

**M. PREPARED INFORMATION**

1. NAME

John King

**2. TELEPHONE NUMBER**

(215) 687-9510

**3. DATE (mo., day, & year)**

December 4, 1990

(1000)  
C-1000

**FINAL**

**31/MAR/92**

**PRELIMINARY ASSESSMENT REPORT**

**OF**

**OLD HOECHST AND FOSTER SITE  
CHESAPEAKE COUNTY, VIRGINIA**

PREPARED UNDER

ARCS CONTRACT NO. 68-W8-0092

WORK ASSIGNMENT NO. 92-22-3JZZ

CERCLIS NO. VAD988196994

EPA DSN VA-592

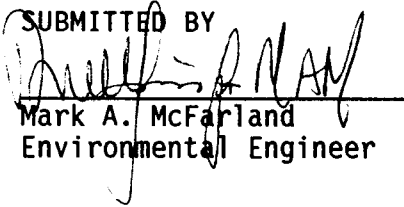
FOR THE

HAZARDOUS WASTE MANAGEMENT DIVISION

U.S. ENVIRONMENTAL PROTECTION AGENCY

MARCH 31, 1992

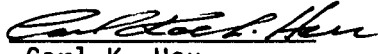
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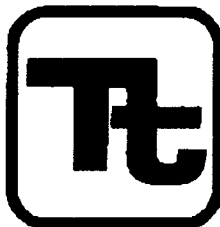
  
Mark A. McFarland  
Environmental Engineer

REVIEWED BY

  
Philip C. Youngs  
Project Manager


APPROVED BY

  
Carl K. Hsu  
Program Director



T4222-12

US EPA, Region III  
Reviewed and Approved

APR 09 1992  
by   
Site Assessment Section



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## 1.0 INTRODUCTION

### 1.1 Authorization

Tetra Tech Inc. (Tt) performed this work under the United States Environmental Protection Agency (USEPA) Alternative Remedial Contracting Strategy (ARCS): Contract No. 68-W8-0092, Work Assignment No. 92-22-3JZZ.

### 1.2 Scope of Work

Tt was assigned to conduct a preliminary assessment of the subject site.

### 1.3 Summary

The Old Hoechst and Foster Site is located in Chesapeake, Virginia along the eastern bank of the Elizabeth River (Southern Branch). The site consists of a single parcel of land totalling 61 acres in area. Prior to 1972, the site was undeveloped marshland. Foster Grant, a sunglass company, purchased the site in 1972 and built a polystyrene production plant on the southern portion of the site. The polystyrene plant has been in operation since that time under several different owners. Huntsman Chemical Corporation (HCC) is the current owner and operator of the facility.

The Old Hoechst and Foster Site Preliminary Assessment was conducted as a result of the Elizabeth River Study (ERS). The ERS studied aerial photographs and used field investigation teams to identify possible sites of contamination along the Elizabeth River. The ERS was performed during 1990.

## 2.0 THE SITE

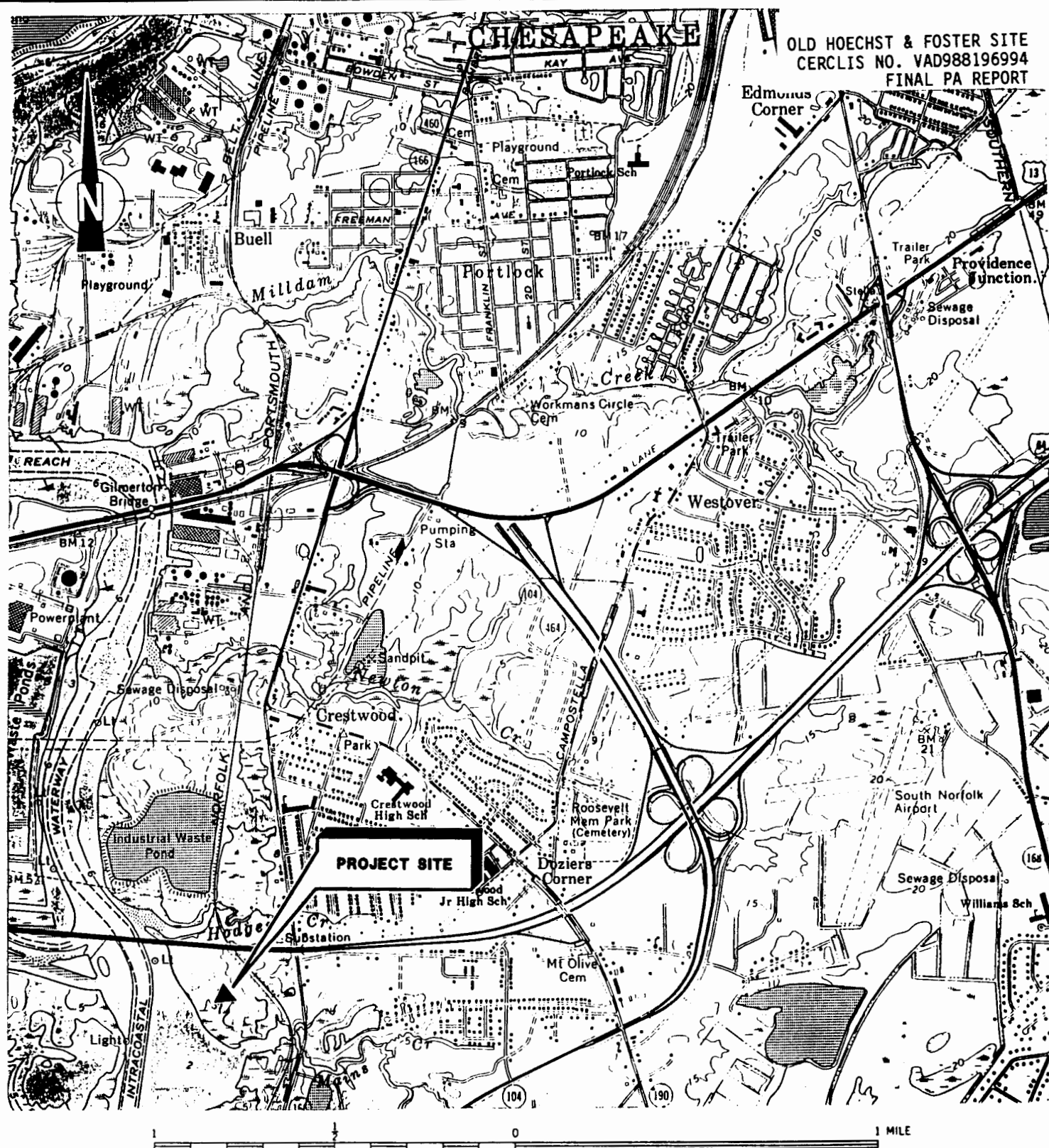
### 2.1 Location

The Old Hoechst and Foster site is located at 5100 Bainbridge Boulevard in Chesapeake, Chesapeake County, Virginia (Figure 2-1). The site is found on the Norfolk, South Quadrangle of the United States Geological Survey (U.S.G.S.) 7.5 minute series topographic map at latitude 36° 45' 22" north and longitude 76° 17' 30" west, or by measuring 6 inches from the eastern map border and 1 inch from the southern border of the quadrangle.<sup>1,2</sup>

### 2.2 Site Layout

The Old Hoechst and Foster site consists of a single parcel of land totalling 61 acres in area. The site is roughly delineated by U.S. Highway 64 to the north, Mains Creek to the south, Bainbridge Boulevard to the east, and the Southern Branch of the Elizabeth River to the west. A polystyrene pellet production plant was built on the southern portion of the site in 1972. The plant consists of warehouses, office buildings, process buildings, a wastewater pretreatment plant and chemical vessels (Figure 2-2). A railroad line enters the site from the north and extends through the plant. With the exception of two 20 million pound monomer storage tanks and several small piles of debris, such as wooden pallets, the northern portion of the site is primarily grassland.

OLD HOECHST & FOSTER SITE  
CERCLIS NO. VAD988196994  
FINAL PA REPORT



**TETRA TECH, INC.**

FIGURE 2-1  
SITE LOCATION MAP  
OLD HOECHST & FOSTER SITE

OLD HOECHST & FOSTER SITE  
CERCLIS NO. VAD988196994  
FINAL PA REPORT

ELIZABETH RIVER

UNLOAD.  
DOCKS

MONOMER TANKS

CONST.  
TRAILER



CATALYST  
BLDG.

TANK FARM

CHIPS  
BLDG.

### 2.3 Ownership History

Prior to 1972, the site was undeveloped marshland. In 1972, a polystyrene pellet production plant was constructed on the site. Huntsman Chemical Corporation is the current owner and operator of the site. Previous owners include Foster Grant (1972-1976) and American Hoechst (1979-1986).<sup>2</sup>

### 2.4 Site Use History

Since 1972, the site has been used as a polystyrene pellet production plant. According to representatives from HCC, very little change has occurred in the processes used at the facility.<sup>2</sup>

There are two basic processes used at the site, suspension and continuous. The suspension process uses batch mixing of any or all of the following: monomer styrene, catalysts, ground rubber, mineral oil and water. The batch mix produces polystyrene beads which are then mixed within an extruder to develop color and consistency. The extruder produces strands of polystyrene which are cooled in a waterbath and ultimately ground into the finish product, polystyrene pellets. The continuous process uses the same raw compounds under "continuous flow" operations. Both processes are extremely heat dependent.<sup>2</sup>

### 2.5 Permit and Regulatory Action History

Huntsman Chemical Corporation operates as a large quantity hazardous waste generator under RCRA ID. No. VAD86302866. The Virginia Department of Waste Management (VDWM) performed an inspection of the site on May 23, 1990. The site inspection revealed several hazardous waste practices employed at the site which were not in compliance with the Virginia Hazardous Waste Management Regulations including incorrectly identifying waste as D001 instead of F003 (issue is still being resolved), failure to notify the state of the exact location of the hazardous waste accumulation area on site, failure to document inspections of accumulation areas and spill control equipment in a log, incorrect labeling of drums in the accumulation area, and failure to notify appropriate local and state

authorities of the contingency plans for the site. A copy of the letter from the VDWM explaining the non-compliance is provided in Appendix A of this report.<sup>3</sup>

## 2.6 Remedial Action to Date

No remedial action is known to have taken place at the site.



### 3.2 Surface Waters

Drainage from the site is toward the west into the Southern Branch of the Elizabeth River. The Southern Branch of the Elizabeth River flows northward seven stream miles where it meets the Eastern Branch to form the Elizabeth River. The Elizabeth River enters the Chesapeake Bay outside the study area.<sup>1</sup>

No drinking water is obtained from sources within 15 stream-miles downstream of the site.<sup>4,5</sup>

The total frontage of wetlands within 15 stream-miles downstream of the site is approximately 7.75 miles.<sup>1</sup>

### 3.3 Hydrogeology

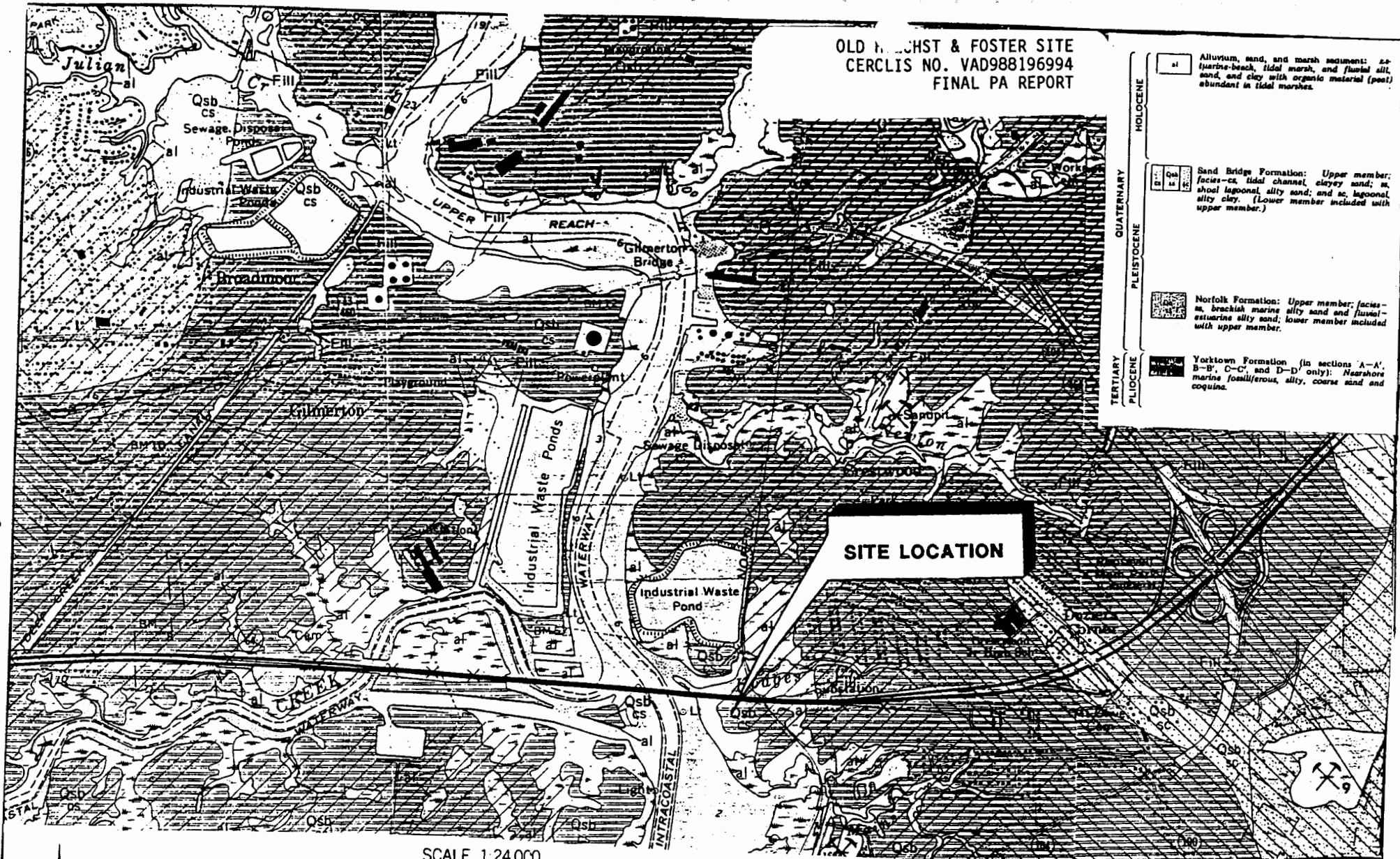
The geologic and hydrogeologic conditions in the study area were researched as part of this investigation. A preliminary literature review was conducted to determine surface and subsurface geologic conditions, soil character, and the status of groundwater transport and storage.

#### 3.3.1 Geology

The site lies within the outer portion of the Atlantic Coastal Plain Physiographic province, an area of relatively low relief underlain by undeformed Cretaceous to Quaternary sediments (Figure 3-1). The outer Coastal Plain in the region is characterized by large flat areas separated by short scarps trending north-south which reflect the morphology of ancient barrier and lagoonal environments. Most stream valleys follow original depositional lows which have been partly filled with Quaternary fluvial and estuarine sediments.<sup>6,7</sup>

The Coastal Plain formations are unconsolidated deposits forming a clastic wedge which thickens from west to east. The dip of bedding decreases gradually upward in the stratigraphic column from 40-50 feet per mile near the base to flat-lying

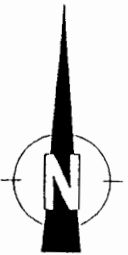
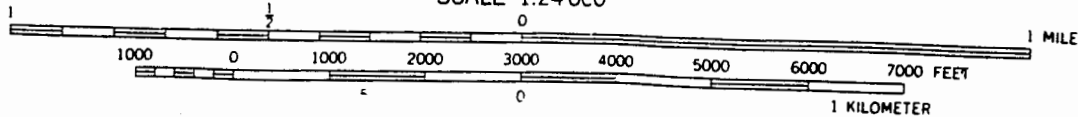
OLD HOECHST & FOSTER SITE  
CERCLIS NO. VAD988196994  
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- HOLOCENE**
- QUATERNARY**
- PLEISTOCENE**
- TERTIARY**
- FLIOCENE**
- al Alluvium, sand, and marsh sediment: quartzite-beach, tidal marsh, and fluvial silt, sand, and clay with organic material (peat) abundant in tidal marshes.
  - Qsb Sand Bridge Formation: Upper member: facies-cs, tidal channel, clayey sand; m, shoal lagoonal, silty sand; and sc, lagoonal, silty clay. (Lower member included with upper member.)
  - Norfolk Formation: Upper member: facies-m, brackish marine silty sand and fluvial-estuarine silty sand; lower member included with upper member.
  - Yorktown Formation (in sections A-A', B-B', C-C', and D-D' only): Nearshore marine fossiliferous, silty, coarse sand and coquina.

SITE LOCATION

SCALE 1:24,000



SOURCE: GEOLOGY OF THE NORFOLK SOUTH QUADRANGLE, VA  
VADMR. 1978.



**TETRA TECH, INC.**

FIGURE 3-1.  
GEOLOGIC MAP  
OLD HOECHST AND FOSTER SITE  
CHESAPEAKE, VIRGINIA

in the upper section. This indicates increasingly stable tectonic conditions during deposition.<sup>6,7,8</sup>

In the area of Chesapeake, Virginia, the Coastal Plain stratigraphic section is greater than 2300 feet thick and has been divided into 7 units. The oldest unit in the Coastal Plain is the Lower Cretaceous Potomac Group which consists of the Patuxent Formation and an upper transitional unit. The Patuxent Formation consists of alternating beds of feldspathic sand, gravel and silty and sandy clay. The transitional unit is intermediate in composition, texture and depositional environment between the underlying Patuxent and overlying Mattaponi Formation. The Mattaponi Formation was deposited in a near-shore, shallow marine environment during the Late Cretaceous to Eocene. It consists of quartz and glauconitic sand, glauconitic clay and shell beds. The Mattaponi Formation is overlain by the Miocene Calvert Formation which has a basal sand member overlain by moderately consolidated clay and silty clay, some of which is phosphatic. The Calvert Formation is overlain by coarse sand and gravel beds of the Yorktown Formation. The Yorktown Formation was deposited on the continental shelf during the Pliocene. The Yorktown is overlain by the Pleistocene Columbia Group which contains the Norfolk and Sand Bridge Formations.<sup>7,8</sup>

The Norfolk Formation, exposed east of the site, is the oldest unit exposed at the surface in the study area. It was deposited in a fluvial estuarine environment and is composed of a lower unit of coarse, pure quartz sand and fine gravel, and an upper unit of clayey silt and sand. Where the Norfolk is missing due to local erosion or nondeposition the Sand Bridge Formation sits directly on the Yorktown. The Sand Bridge Formation is exposed at the surface over much of the study area and has three different facies mapped in different parts of the study area. The silty-sand facies contains clean homogeneous sand underlying the northern part of the study area, except in stream valleys where it has been eroded away. The clayey-sand facies is ten to forty feet thick and underlies an extensive area south and west of the site. This facies grades laterally into the other two facies. The silty-clay facies is about fifteen feet of massive, cohesive silty clay underlying an area east of the site.<sup>7,8</sup>

The Pleistocene-age Sand Bridge Formation has been locally dissected by streams and Holocene fluvial sand has been deposited in the stream valleys. An example is the clean quartz sand deposited along the banks of the Elizabeth River. The other Holocene-age deposit in the area is an extensive blanket of clayey and organic silts covering the marshes. Thick sections of Holocene clay and silt, up to 100 feet thick in places, indicate rapid siltation rates.<sup>7,8</sup>

### 3.3.2 Soils

The land at the site has been mapped as made land, which is nearly flat, extensively filled and graded. The characteristics of this soil are variable due to the variability of the fill material used in different locations.<sup>9</sup>

To the west the land is Tidal Marsh along both banks of the Elizabeth River. These areas are subject to tidal overflow, thus they are under water part of the time. The soils are usually gray-black, contain clay or silt mixed with variable amounts of sand, and have variable texture. There is commonly a cap of fine-textured, dense, variably decomposed organic matter. The soil supports a dense growth of marsh grass and reeds.<sup>9</sup>

To the east of the site the soil is predominantly Mixed Alluvial land which occurs on flood plains. It is well mixed sand, clay and silt washed in from nearly sloping areas along the edge of the flood plain. The fine subsoil is capped by dark organic layers. This land is under water much of the time and supports water-tolerant trees, shrubs and grasses.<sup>9</sup>

To the southwest of the site is a large area of Mucky Peat soil in Dismal Swamp. The high organic soil in places contains logs and stumps and borders on being classified as peat, in which plant material is identifiable. This soil is extremely acid.<sup>9</sup>

There are scattered areas of Othello fine sandy loam, some of which are extensive. It has a fine-textured, poorly drained subsoil and gray, fine sandy loam surface soil. It is poorly drained and has low permeability.<sup>9</sup>

Other soils in the study area which are less extensive as those mentioned above are Dragston, Elkton and Bertie very fine sandy loam. These soils are randomly distributed. They are typically about 60 inches thick, poorly drained and have moderate permeability and water holding capacity.

### 3.3.3 Ground Water

The Coastal Plain sediments underlying the study area contain four aquifers. The aquifers are composed of coarse-grained sediments separated by fine-grained confining layers and together make up a leaky aquifer system. Only the water table aquifer exists under unconfined conditions. The underlying aquifers are under semi-confined to confined conditions. Recharge of the confined aquifers is mostly by slow percolation of water from overlying aquifers through the confining beds. There is also some recharge by slow movement of water from the east. Ground water in the vicinity of the site moves slowly to the west toward an area of heavy pumping near Franklin, Virginia. From bottom to top the four aquifers are: the Lower Cretaceous, Eocene-Upper Cretaceous, Yorktown and the water table aquifer. Each of these will be discussed in stratigraphic order.<sup>8</sup>

The lower Cretaceous aquifer exists within interbedded gravel, sand and silt at the top of the Patuxent Formation of the Potomac Group. The top of the Potomac Group is about 700 feet below the surface. The aquifer is about 1600 feet thick and has the highest potential yield of the four aquifers. However because of the great depth, high chloride content and a high total dissolved solids content the Lower Cretaceous aquifer is not extensively used. Fresh water is present only in the upper 200 feet, below that the chloride and dissolved solids increase progressively downward into the brackish lower zone.<sup>8</sup>

Most wells tapping this aquifer are in Northwest Chesapeake outside the study area. These wells yield between 200 and 1000 gallons per minute (gpm) of

slightly brackish water and have specific capacities of 2.9 to 30.8 gpm/foot. The aquifer is separated from the overlying Eocene-Upper Cretaceous aquifer by 50 feet or more of clay and silt of the Transitional unit.<sup>8</sup>

The Eocene-Upper Cretaceous aquifer is within the Mattaponi Formation and the basal sand member of the Calvert Formation. The water-bearing zone consists of one or two fine to medium-grained glauconitic sand beds, 10 to 30 feet thick with interbedded silt and clay. These beds are at a depth of about 600 feet below the surface. Few wells terminate in the Eocene-Upper Cretaceous aquifer; most deep wells penetrate to the underlying, more productive Lower Cretaceous aquifer. There are six wells in Chesapeake which terminate in the Eocene-Upper Cretaceous aquifer. One of the six wells has been tested and has a yield of 150 gpm and a specific capacity of 2.5 gpm/foot.

Wells in the Eocene-Upper Cretaceous aquifer have slightly brackish water. Chloride increases from 146 mg/l in the western part of the outer Coastal Plain to 2584 mg/l near the shore. Dissolved solids also increase from west to east from 2601 mg/l to 5461 mg/l respectively.<sup>8</sup>

The Yorktown aquifer is the most heavily pumped of the four aquifers. The Yorktown Formation has water bearing zones throughout, although the upper water bearing zone is the only one which is regionally extensive. The upper water-bearing zone is 5 to 20 feet of fine to coarse sand, gravel and shell beds in the upper part of the Yorktown Formation at a depth of 50 to 150 feet. The coarse beds and lenses are laterally continuous but the thickness, grain-size and permeability vary locally, thus different beds predominate productivity in different areas. The water exists under confined conditions from overlying clay and sandy clay beds 20 to 40 feet thick. The aquifer has a hydraulic conductivity of .006 to .09 feet/day. Water in wells tapping the Yorktown rises to within 4 to 8 feet of the ground surface with 2.5 to 4 feet of seasonal variation. Pumping tests indicate the productive zone in the upper part of the Yorktown Formation is hydraulically connected to lower portions where the water has a significantly higher content of dissolved solids. The Yorktown aquifer

is separated from the underlying Eocene-Upper Cretaceous aquifer by a silt and clay aquitard at least 350 feet thick.<sup>8</sup>

Water from the Yorktown aquifer is generally good, although it may be brackish locally.<sup>8</sup>

Large wells in the Yorktown, those with diameters of six inches or more, yield 12 to 304 gpm and have specific capacities of 0.5 to 14.4 gpm/foot, whereas smaller wells have yields of 5 to 50 gpm. The well at Tidewater Community College, located about 2.25 miles south of the site, is considered to represent near average hydraulic characteristics for the Yorktown aquifer. At this location the aquifer has a yield of 62.6 gpm, and a transmissivity of 17,000 gpd/foot.<sup>8</sup>

The aquifer nearest to the surface in the study area is the water table aquifer which contains water in unconfined conditions within the Columbia Group. The water bearing zones are beds and lenses of sand, gravel and shells, typically about 5 to 10 feet thick, found throughout the unit. These beds are discontinuous because of the complexity of the estuarine environment in which the sediments were deposited. The aquifer is recharged by precipitation and water moves from topographically high areas to low areas where it is discharged into streams. Water is also discharged by slow percolation downward into underlying aquifers. Water levels are 4 to 8 feet below ground level and fluctuate 3 to 4 feet seasonally. Many residents tap the water table aquifer to irrigate lawns. Transmissivity is typically about 2600 gpd/foot.<sup>8</sup>

The water quality in the water table aquifer is generally good. It is moderately hard to hard and has a low dissolved solids content, except near tidal areas where chloride is commonly greater than the 250 mg/l limit for drinking water. Other problems with the water locally are low pH and high iron content.<sup>8</sup>

### 3.4 Climate and Meteorology

The closest National Oceanic and Atmospheric Administration (NOAA) climatic data station to the site is located in Norfolk, Virginia approximately 6 miles north of the site. Climatic conditions at the site are expected to be similar. The average annual temperature is 54.9°F. The warmest month is July, with an average annual temperature of 78.4°F, and the coldest month is January, with an average annual temperature of 39.9°F. The average annual precipitation is 45.22 inches. The average evaporation is approximately 40.09 inches (based on seven months of data). Therefore, the annual average net precipitation is 5.13 inches. A two-year, 24-hour rainfall would produce 3.5 inches of rain.<sup>10,11</sup>

### 3.5 Land Use

The land surrounding the site is primarily residential and industrial. Crestwood High School is located 3/4 mile northeast of the site. The high school is surrounded by the Crestwood community. The area along the banks of the Southern Elizabeth River is primarily industrial.<sup>1,2</sup>

### 3.6 Population Distribution

Approximately 144 people work on-site. Approximately 20 people live within 1/4 mile of the site. Approximately 1,513 people live between 1/4 and 1/2 mile of the site. Approximately 3,518 people live between 1/2 and 1 mile of the site. Approximately 14,071 people live between 1 and 2 miles of the site. Approximately 23,452 people live between 2 and 3 miles of the site, and approximately 32,833 people live between 3 and 4 miles of the site. Therefore, an estimate 75,047 people live within 4 miles of the site. Population figures are based on a combination of a count of homes within each township, borough or city for specified distances from the site using 7.5 minute series topographic maps and multiplying that by the number of persons per home for each township, borough, or city as given by the 1990 census data. For some urban areas, houses are not shown on the topographic maps, so populations were estimated using a fraction of



the total population of the township, borough, or city based the area of the demographic unit within the specified distance from the site.<sup>1,2</sup> The nearest residence is located approximately  $\frac{1}{4}$  mile northeast of the site.

### 3.7 Critical Environments

Two federally endangered species are expected to be transient species on the site. They are the bald eagle (*Haliaeetus leucocephalus*) and the peregrin falcon (*Falco peregrinus*).<sup>13</sup>

#### 4.0 WASTE TYPES AND QUANTITIES

The site currently includes a polystyrene pellet production plant. During production of the pellets and normal operations at the site, several waste streams are generated. These waste streams include; non-contact process water, process waste water, lab wastes, D001 hazardous waste and storm water run-off from both paved and unpaved areas of the plant.<sup>2,3</sup>

The non-contact process water or cooling water is discharged to the sanitary sewer line which is ultimately treated by Hampton Roads Sanitation District (HRSD) treatment works. Contact water, used in water baths and in production, is treated on-site by a pretreatment plant before being discharged to HRSD. The pretreatment is used to remove solids. The solids are disposed of at the Southeastern Public Service Authority landfill.<sup>2,3</sup>

Hazardous waste solvents (D001) are generated during the continuous flow process. Some of the waste is recycled, however most is taken off-site for incineration at the Oldover TSD facility in Arvon, Virginia. Storage on site is in bulk trailers. HCC operates as a RCRA large quantity generator. Lab (research and QC) wastes are also classified as D001 and are disposed of with the continuous flow waste.<sup>2,3</sup>

Storm water run-off from the site is managed two ways. Run-off from the areas surrounding the process operations are diverted to a retention pond located at the southwestern portion of the site. The pond is synthetically lined and has an approximate volume of 300,000 gallons. The pond is used as a containment measure for possible spills or leaks. Ultimate discharge from the retention pond is to the Elizabeth River. Run-off from the remainder of the site is discharged directly to the Elizabeth River.<sup>2,3</sup>

## 5.0 FIELD TRIP REPORT

### 5.1 Summary

On Thursday, December 19, 1991, Tetra Tech personnel, Cheryl Ann Scanlon and Mark McFarland, conducted a preliminary assessment of the Old Hoechst and Foster site. Upon arrival at the site, Tetra Tech personnel met with HCC representatives Van White, Michael Hofler, and James Joyce. The weather conditions at the time of the site visit were cool and overcast with temperatures in the 30's °F.

### 5.2 Persons Contacted

#### 5.2.1 Prior to Site Visit

Mr. Van White  
Manager of Environmental Affairs  
Huntsman Chemical Corporation  
5100 Bainbridge Blvd.  
Chesapeake, VA 23320  
(804) 494-2740

Mr. Tom Modena  
Virginia Department of Waste Management  
101 North 14th Street  
Monroe Building  
Richmond, VA 23219  
(804) 225-2859

#### 5.2.2 During Site Visit

Mr. Van White  
Manager of Environmental Affairs  
Huntsman Chemical Corporation  
(same as above)

Mr. Michael A. Hofler  
Production Manager  
Huntsman Chemical Corporation  
(same as above)

Mr. James M. Joyce  
Plant Manager  
Huntsman Chemical Corporation  
(same as above)

### 5.3 Observations

- No stained soils or evidence of spills were observed on site.
- The entire site was fenced.
- Secondary containment was provided around all vessels and tanks.
- The site area was relatively flat (0-3% slope).
- A pretreatment plant was used by the facility to treat process waters prior to discharge to the local POTW.
- Most of the chemical processes were performed in vessels within enclosed structures (buildings).
- Two drums of hazardous waste (D001) were stored in a covered concrete hazardous waste storage area.
- Eight PCB transformers were present - no evidence of leaking was apparent.

Section 5.4

<b>POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT</b>		I. IDENTIFICATION	
		01 STATE	02 SITE NUMBER
		VA	592

II. SITE NAME AND LOCATION					
01 SITE NAME (Legal, common, or descriptive name of site)			02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER		
Old Hoechst and Foster Site			5100 Bainbridge Boulevard		
03 CITY		04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE
Chesapeake		VA	23320	Chesapeake	550
09 COORDINATES		LATITUDE		LONGITUDE	
		36° 45' 22" —		76° — 17' 30" —	
10 DIRECTIONS TO SITE (Starting from nearest public road)					
The site is located on Bainbridge Blvd. South of U.S. Highway 64.					

III. RESPONSIBLE PARTIES					
01 OWNER (If known)			02 STREET (Business, mailing, residential)		
Huntsman Chemical Corporation			5100 Bainbridge Blvd.		
03 CITY		04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER	
Chesapeake		VA	23320	(804) 494-2740	
07 OPERATOR (If known and different from owner)			08 STREET (Business, mailing, residential)		
Same					
09 CITY		10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER	
				( )	
13 TYPE OF OWNERSHIP (Check one)					
<input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN					
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)					
<input checked="" type="checkbox"/> A. RCRA 3001 DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 e) DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input type="checkbox"/> C. NONE					

IV. CHARACTERIZATION OF POTENTIAL HAZARD			
01 ON SITE INSPECTION		BY (Check all that apply)	
<input checked="" type="checkbox"/> YES DATE <u>12 / 19 91</u> MONTH DAY YEAR <input type="checkbox"/> NO		<input type="checkbox"/> A. EPA <input checked="" type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify)	
CONTRACTOR NAME(S): <u>Tetra Tech, Inc.</u>			
02 SITE STATUS (Check one)		03 YEARS OF OPERATION	
<input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		<u>1972</u>   <u>Present</u> <input type="checkbox"/> UNKNOWN <small>BEGINNING YEAR    ENDING YEAR</small>	
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED			
No waste is known to have been disposed of or spilled on site.			
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION			

V. PRIORITY ASSESSMENT			
01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)			
<input type="checkbox"/> A. HIGH (Inspection required promptly) <input type="checkbox"/> B. MEDIUM (Inspection required) <input type="checkbox"/> C. LOW (Inspect on time available basis) <input checked="" type="checkbox"/> D. NONE (No further action needed, complete current disposition form)			


  

VI. INFORMATION AVAILABLE FROM				
01 CONTACT		02 OF (Agency/Organization)		03 TELEPHONE NUMBER
Lorie Baker		US EPA		215 597-3165
04 PERSON RESPONSIBLE FOR ASSESSMENT		05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER
Cheryl Ann Scanlon		Tetra Tech,	Inc. ARCS	302 738-7551
				08 DATE
				<u>1</u> / <u>15</u> / <u>92</u> <small>MONTH DAY YEAR</small>

Section 5.4

		<b>POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 2 - WASTE INFORMATION</b>		<b>I. IDENTIFICATION</b> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">01 STATE VA</td> <td style="width: 50%;">02 SITE NUMBER 592</td> </tr> </table>		01 STATE VA	02 SITE NUMBER 592
01 STATE VA	02 SITE NUMBER 592						
<b>II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS</b>							
<b>01 PHYSICAL STATES</b> <i>(Check all that apply)</i> <input type="checkbox"/> A SOLID <input type="checkbox"/> E SLURRY <input type="checkbox"/> B POWDER, FINES <input type="checkbox"/> F LIQUID <input type="checkbox"/> C SLUDGE <input type="checkbox"/> G GAS <input type="checkbox"/> D OTHER <u>unknown</u> <span style="font-size: small;">(Specify)</span>		<b>02 WASTE QUANTITY AT SITE</b> <i>(Measures of waste quantities must be independent)</i> TONS _____ CUBIC YARDS <u>unknown</u> NO. OF DRUMS _____		<b>03 WASTE CHARACTERISTICS</b> <i>(Check all that apply)</i> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> A TOXIC  <input type="checkbox"/> B CORROSIVE  <input type="checkbox"/> C RADIOACTIVE  <input type="checkbox"/> D PERSISTENT                 </div> <div> <input type="checkbox"/> E SOLUBLE  <input type="checkbox"/> F INFECTIOUS  <input type="checkbox"/> G FLAMMABLE  <input type="checkbox"/> H IGNITABLE                 </div> <div> <input type="checkbox"/> I HIGHLY VOLATILE  <input type="checkbox"/> J EXPLOSIVE  <input type="checkbox"/> K REACTIVE  <input type="checkbox"/> L INCOMPATIBLE  <input checked="" type="checkbox"/> M NOT APPLICABLE                 </div> </div>			
<b>III. WASTE TYPE</b> N/A							
CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS			
SLU	SLUDGE						
OLW	OILY WASTE						
SOL	SOLVENTS						
PSD	PESTICIDES						
OCC	OTHER ORGANIC CHEMICALS						
IOC	INORGANIC CHEMICALS						
ACD	ACIDS						
BAS	BASES						
MES	HEAVY METALS						
<b>IV. HAZARDOUS SUBSTANCES</b> <i>(See Appendix for most frequently cited CAS Numbers)</i> N/A							
01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION		
	No waste is known to have been deposited on site.						
<b>V. FEEDSTOCKS</b> <i>(See Appendix for CAS Numbers)</i> N/A							
CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER		
FDS			FDS				
FDS			FDS				
FDS			FDS				
FDS			FDS				
<b>VI. SOURCES OF INFORMATION</b> <i>(Cite specific references, e.g., state files, sample analysis, reports)</i>							
Tetra Tech, Inc. Preliminary Assessment. CERCLIS NO. VAD988196994; Old Hoechst and Foster Site.							

Section 5.4

 <b>POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT</b> <b>PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS</b>		<b>I. IDENTIFICATION</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">01 STATE VA</td> <td style="width: 50%; text-align: center;">02 SITE NUMBER 592</td> </tr> </table>		01 STATE VA	02 SITE NUMBER 592
01 STATE VA	02 SITE NUMBER 592				
<b>II. HAZARDOUS CONDITIONS AND INCIDENTS</b>					
01 <input type="checkbox"/> A. GROUNDWATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____) 04 NARRATIVE DESCRIPTION	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
None reported or observed.					
01 <input type="checkbox"/> B. SURFACE WATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____) 04 NARRATIVE DESCRIPTION	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
None reported or observed.					
01 <input type="checkbox"/> C. CONTAMINATION OF AIR 03 POPULATION POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____) 04 NARRATIVE DESCRIPTION	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
None reported or observed.					
01 <input type="checkbox"/> D. FIRE/EXPLOSIVE CONDITIONS 03 POPULATION POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____) 04 NARRATIVE DESCRIPTION	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
none reported or observed.					
01 <input type="checkbox"/> E. DIRECT CONTACT 03 POPULATION POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____) 04 NARRATIVE DESCRIPTION	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
None reported or observed.					
01 <input type="checkbox"/> F. CONTAMINATION OF SOIL 03 AREA POTENTIALLY AFFECTED: _____ <div style="text-align: center; font-size: small;">(Acres)</div>	02 <input type="checkbox"/> OBSERVED (DATE: _____) 04 NARRATIVE DESCRIPTION	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
None reported or observed.					
01 <input type="checkbox"/> G. DRINKING WATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____) 04 NARRATIVE DESCRIPTION	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
None reported or observed.					
01 <input type="checkbox"/> H. WORKER EXPOSURE/INJURY 03 WORKERS POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____) 04 NARRATIVE DESCRIPTION	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
None reported or observed.					
01 <input type="checkbox"/> I. POPULATION EXPOSURE/INJURY 03 POPULATION POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____) 04 NARRATIVE DESCRIPTION	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
None reported or observed.					

Section 5.4

<b>POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT</b>		I. IDENTIFICATION	
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS		01 STATE VA	02 SITE NUMBER 592
<b>II. HAZARDOUS CONDITIONS AND INCIDENTS</b> <i>(Continued)</i>			
01 <input type="checkbox"/> J. DAMAGE TO FLORA 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
None reported or observed.			
01 <input type="checkbox"/> K. DAMAGE TO FAUNA 04 NARRATIVE DESCRIPTION <i>(Include name(s) of species)</i>	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
None reported or observed.			
01 <input type="checkbox"/> L. CONTAMINATION OF FOOD CHAIN 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
None reported or observed.			
01 <input type="checkbox"/> M. UNSTABLE CONTAINMENT OF WASTES <i>(Spills/runoff/standing liquids/leaking drums)</i> 03 POPULATION POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
04 NARRATIVE DESCRIPTION None reported or observed.			
01 <input type="checkbox"/> N. DAMAGE TO OFFSITE PROPERTY 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
None reported or observed.			
01 <input type="checkbox"/> O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
None reported or observed.			
01 <input type="checkbox"/> P. ILLEGAL/UNAUTHORIZED DUMPING 04 NARRATIVE DESCRIPTION	02 <input type="checkbox"/> OBSERVED (DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED
None reported or observed.			
05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS None reported or observed.			
<b>III. TOTAL POPULATION POTENTIALLY AFFECTED:</b> _____			
<b>IV. COMMENTS</b>			
No waste is known to have been deposited on site.			
<b>V. SOURCES OF INFORMATION</b> <i>(Cite specific references, e. g., state files, sample analysis, reports)</i>			
Tetra Tech, Inc. Preliminary Assessment. CERCLIS NO. VAD988196994 Old Hoechst & Foster Site.			



## 6.0 REFERENCES

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2. Tetra Tech, Inc. Preliminary Assessment; meeting and site visit. Recorded in logbook for CERCLIS No. VAD988196994. December 19, 1991.
3. Clark, Lisa A., Virginia Department of Waste Management to Van White, Huntsman Chemical Corporation. Correspondence dated June 10, 1988.
4. Renn, R., City of Chesapeake Municipal Water Supply, to Tom Fitz, Tetra Tech, Inc. Telephone Conversation, January 9, 1992.
5. Arrington, John. Portsmouth Municipal Water Supply to Tom Fitz, Tetra Tech, Inc., Telephone Conversation, January 9, 1992
6. Hunt, C.B. National Regions of the United States and Canada. Freeman and Company, 1974.
7. Barker, W. J. and E.D. Bjorken, Geology of the Norfolk South quadrangle, Virginia. Virginia Division of Mineral Resources. Publication 9, 1978.
8. Siudyla, E.A., A.E. May and D. W. Hawthorne. Groundwater Resources of the Four Cities Area, Virginia. Commonwealth of Virginia State Water Control Board; Bureau of Water Control Management, Planning Bulletin 331. 1981.
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10. National Oceanic and Atmospheric Administration. Climatological Data, Annual Summary, Virginia 1989. National Climatic Center, Ashville, North Carolina. 1989.
11. United States Department of Commerce, United States Printing Office. Rainfall Frequency Atlas of the United States. Technical Paper No. 40, 1963.
12. United State Bureau of the Census. 1990 Census of Population and Housing. Virginia: Summary Population and Housing Characteristics. Household, Family and Group Quarters Characteristics: 1990. Pp 47-58.

13. Kulp, Charles, United States Department of the Interior, Fish and Wildlife Service, to C. Scanlon, Tetra Tech, Inc. Correspondence. January 13, 1992.

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# ***APPENDIX A***

11/11/11

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
841 Chestnut Building  
Philadelphia, Pennsylvania 19107

SUBJECT: RCRA Inspection

DATE: 8/23/88

Facility: *Huntman Chemical Corp.*

ID #: *VAD086302866*

FROM: Charlene C. Harrison, Environmental Engineer  
RCRA Enforcement General Section (3HW15)

TO: FILE

THRU: *rgt 4/13/88*  
Victoria P. Binetti, Chief  
RCRA Enforcement General Section (3HW15)

THE STATE IS TAKING ACTION TO RESOLVE THE VIOLATIONS IN  
THIS INSPECTION REPORT.

WE WILL MONITOR THE STATE ACTIVITY REGARDING RESOLUTION  
OF THESE VIOLATIONS.

- Facility is scheduled for reinspection
- Facility now classified as generator  
(Previously SQG)





# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF WASTE MANAGEMENT

11th Floor, Monroe Building

101 N. 14th Street

Richmond, VA 23219

(804) 225-2667

JUN 10 1988

CERTIFIED - RETURN  
RECEIPT REQUESTED

Van White  
Process Engineer  
Huntsman Chemical Corporation  
5100 Bainbridge Boulevard  
Chesapeake, VA 23320

Re: EPA ID# VAD086302866

Dear Mr. White:

During a recent (May 26, 1988) inspection it was noted that your facility was not in total compliance with the Virginia Hazardous Waste Management Regulations (VHWMR). Such items are indicated by checkmarks on the enclosed inspection checklists and are listed below:

1. As we discussed during the inspection, your facility no longer qualifies as a Small Quantity Generator (SQG) since solvents that are sent to a facility to be reclaimed are no longer excluded as hazardous waste. Therefore, as a generator, you may only store your waste on-site for 90 days. One drum of hazardous waste has been stored on-site since Nov. 16, 1987, longer than the 90 days allowed for a generator. You said arrangements had been made to have the drum shipped the week of May 31, 1988. As soon as the drum has been shipped off-site, please send me a copy of the manifest.
2. The generator has not notified the Executive Director of the Department of the exact location of the hazardous waste accumulation areas at the facility.
3. The 2 1/2 gallon hazardous waste accumulation containers located in the QC lab and TD lab satellite accumulation areas must be marked clearly with the words "Hazardous Waste", and kept closed during the accumulation period. Please label all hazardous waste containers properly.
4. The hazardous waste container storage area is not inspected on a weekly basis, and an inspection log is not maintained.



5. The job titles for personnel that are involved with hazardous waste management and the name of the employee filling each job should be updated to reflect current personnel. Please update your training records.
6. The facility does not have on record a written position description for each job involved with hazardous waste management. Please update your training records to include this information.
7. The contingency plan does not contain the address of the facility emergency response coordinator. Please add this information to your contingency plan.
8. The list of emergency equipment in your contingency plan does not include a brief description of the capabilities of each piece of equipment on the list. Please update your emergency equipment list to include this information.
9. Copies of the contingency plan have not been sent to all local authorities, and documentation has not been received to indicate that these authorities received the information. After the contingency plan has been updated, please send copies to the appropriate local authorities, and have them provide documentation that they have received the contingency plan.
10. The annual report submitted for 1987 was filled out incorrectly. Please resubmit a 1987 annual report, on the forms I gave you during the inspection, no later than July 26, 1988.

Also, during the inspection, you said that your recovered volatiles were no longer to be manifested as waste since they are to be sent to your facility in the city of Peru. Since this material is spent solvent (F-listed waste), in order for you to make it a practice to send the spent solvent to Peru, you must first send us a copy of the agreement with this facility specifically stating that the material will in no way be treated or reclaimed prior to its reuse by the Peru facility in accordance with VHWMR Section 3.D.; Section 3.1.A.8.a,b,c; and Section 14.2.

Please take the appropriate action to bring your facility into compliance with the regulations by July 11, 1988. A follow-up inspection will be scheduled after this date.

If you have any further questions regarding this matter, please call me at (804) 225-2780.

Sincerely,

*Moham med H. Hattab*

For Lisa A. Clark  
Public Health Engineer  
Division of Technical Services

Enclosures

LAC:372/lhc

January 1989

SURVEY SHEET  
FOR INSPECTION OF HAZARDOUS WASTE FACILITIES

Name of Facility: Huntsman Chemical Corp  
 Address: Bainbridge Rd.  
Chesapeake, VA 23320  
 EPA ID Number: VAD09630286L  
 Facility Representative: Van White  
 Title: Process Engineer  
 Telephone Number: (804) 494-2500  
 Inspector's Name: Lisa Clark  
 Title: Public Health Engineer  
 Date of Inspection: May 26, 1988

1. What is the business activity of the firm? (i.e., furniture mfg., metal plating, recycling, etc.)

Polymerize styrene into polystyrene

2. Give a brief description of the waste stream(s) and hazardous waste code(s).

1,1,1 Trichloroethane (F001) Safety Kleen  
Mineral Spirits (D001)  
Recovered volatiles [styrene, xylene, cumene, N-propyl benzene, ethylbenzene]  
D001 52% 23% 2% 1% 15%

3. List the amounts of hazardous waste generated on a monthly basis (use the highest monthly total) and the greatest amount accumulated at the site.

Waste Code	Amount Generated	Amount Accumulated
- D001	6 drums/year	1/10 full
- F001	0 *	0
- D001 (S-K)	320 lbs	0
- D001 (Volatiles)	226,360 lbs	0 **
- QC Lab. D001, F003, F005	1 Drum/year	~ 1/2 Full
- F003	1 Drum/year	1/3 Full

\*\* last Manifest May 16 - this is no longer shipped under manifest as it is being reused by another facility.

\* in 1988

4. Does the facility ever generate greater than:  
-1 kg. of acutely toxic waste (P listed waste or F020-F023 and F026-F027)? YES ☒ NO

-100 kg of clean up from a spill of P listed waste or F020-F023 and F026-F027 waste? YES ☒ NO

If yes, then the facility is a generator.

5. Does the facility generate land banned waste? ☒ YES NO

If yes, circle the type:

☒ F001 F002 F003 F004 F005

California List - list the metal \_\_\_\_\_

Cyanide

Dioxin

How is the waste presently being handled? Where is it sent?  
Is the generator providing the required certifications to the TSD facility?

Safety-Kleen

SeaBoard Chemical

6. Does the facility generate any hazardous waste that is excluded from regulation? If yes, list the waste and the basis for exclusion.

No

7. Based on the above, the facility is a:

- a. conditionally exempt small quantity generator
- b. small quantity generator
- ☒ c. generator

8. Check accumulation times for the three types of generators.

If the times are exceeded, then the facility is moved up to the next category. A generator becomes a TSD facility.

A conditionally exempt small quantity generator can accumulate indefinitely, but if the amount accumulated ever exceeds 1000 kgs. then he becomes a small quantity generator. At the time the 1000 kg. limit is passed, the accumulation times for small quantity generators begins.

Small quantity generators can accumulate up to 180 days or 270 days if the disposal site is over 200 miles away. However, if at any time over 6000 kgs. of waste is accumulated, then the small quantity generator becomes a generator.

9. List each container and tank accumulation area. Specify the number and capacity of each tank. [Note: Include any satellite accumulation areas. Verify that only 55 gallons of waste (or one quart of acutely toxic waste) is at that site.]

Location	Number of Containers	Number of Tanks	Capacity
Maintenance		1 (S.K)	
<del>Waste</del>			
E. of Extrusion	3 *	-	55-gallon
E. of Extrusion	1	-	55-gallon
** QC Lab	1		2 1/2 gal
** TD Lab	1		2 1/2 gal.

10. Comments

\* 3 Satellite accum Drums

1. D001, F003, F005 QC Lab Solvents

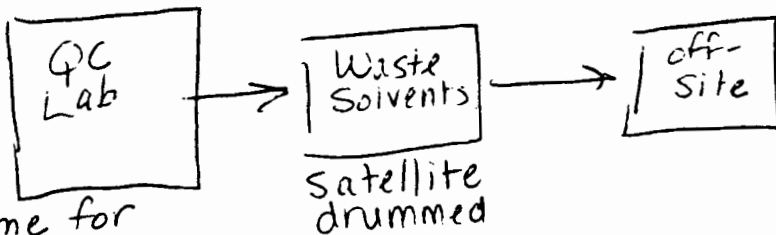
2. TD Halogenated Solvents F001 - F002

3. TD Non-halogenated solvents F003, D001

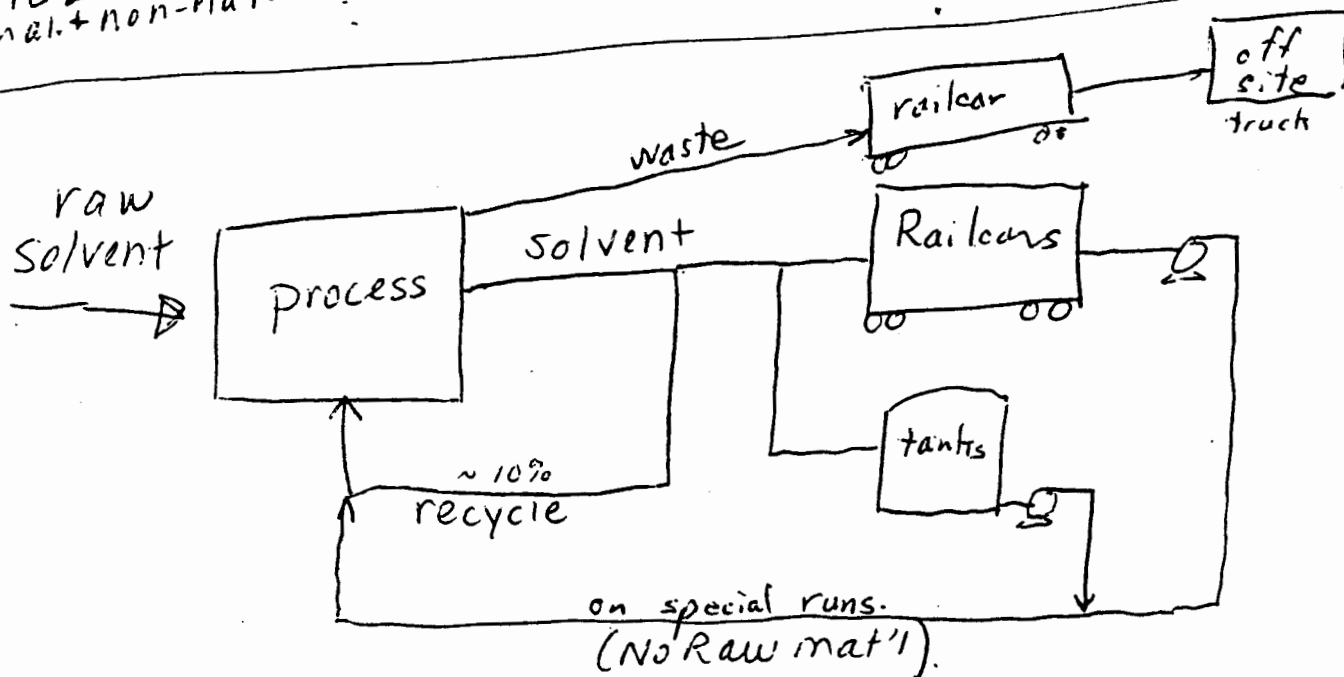
\*\* Needs to be labeled

# 11. Waste Management Flow Diagram

(On this page sketch a brief flow diagram that includes where the waste is generated, the steps through a treatment system (if any), the steps through storage including satellite accumulation areas. Do this for each waste stream including excluded hazardous waste.)



Same for  
TD ~~area~~  
hal. + non-hal.



now out of date

January 1988

CHECKLIST FOR HAZARDOUS WASTE  
INSPECTION OF GENERATORS

Name of Facility: Huntsman Chemical  
Address: 5100 Bambridge Blvd  
Chesapeake VA 23320  
EPA ID Number: VAD086302866  
Facility Representative: Van White  
Title: Process Engineer  
Telephone Number (804) 494-2500  
Inspector's Name: Lisa Clark  
Title: Public Health Engineer  
Date of Inspection: May 26, 1988

Va. Hazardous Generator Checklist  
Waste Reg.

- 6.3. 1. Is a manifest system currently being used for all hazardous waste shipped off site? ☒ YES ☐ NO
- 6.3.C. 2. Has the generator determined that the transporter(s) and facility have an EPA ID number? [Note: Shipments to POTWs must be manifested.] ☒ YES ☐ NO
- 6.3.A.7 3. Has the generator determined that the transporter has a valid Virginia Transporter Permit? ☒ YES ☐ NO
- 6.3 4. Is the following information on the  
6.3.3.1. manifest:
- a. The generator's name, mailing address, EPA ID Number, and telephone number? ☒ YES ☐ NO
- 6.3.3.2. b. An unique five digit number assigned to this manifest by the generator? ☒ YES ☐ NO

Bralley Willet Tank Lines VAD0048699707

- 3.B.3. c. The total number of pages of the ☒ YES NO manifest?
- 3.B.4. d. The company name and EPA ID ☒ YES NO number of transporter used?
- 3.B.5. e. The company name, site address, ☒ YES NO and EPA ID number of the facility designated to receive the waste?
- 3.B.6. f. The U. S. DOT description of ☒ YES NO each waste to include its proper shipping name, hazard class, and I.D. number (UN/NA) as identified in the Virginia Regulations Governing the Transportation of Hazardous Material?
- 3.B.7. g. The quantities of waste being ☒ YES NO shipped?
- 3.C. h. The following certification: "I ☒ YES NO hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by (mode of transportation) according to applicable international and national governmental regulations. I certify that I have a program in place to reduce the volume and toxicity of waste generated to a degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and environment."
- 5.C.2. 5. Have manifest been received from the ☒ YES NO TSD facility for any waste which was shipped over 45 days ago?

If no, has the generator filed an exception report with the Executive Director which included:

6.5.C.2.a.	a. A legible copy of the manifest for which the generator does not have confirmation of the delivery?	YES NO N/A
6.5.C.2.b.	b. A cover letter explaining the efforts taken to locate the shipment?	YES NO N/A
6.4.E.1.	6. Is hazardous waste being accumulated on-site for less than 90 days? If yes,	YES <u>NO</u> *
6.4.E.1.a.	a. Is the waste stored in containers or tanks? (If yes, fill out appropriate checklists. If no, a TSD permit is required.)	<u>YES</u> NO
6.4.E.1.b.	b. Is the date that accumulation begins clearly marked and visible for inspection on each container?	<u>NO</u> ✓
6.4.E.1.c.	c. Is each container and tank clearly marked with the words "Hazardous Waste"?	<u>NO</u> ✓
6.4.E.1.e.	d. Has the generator notified the Executive Director by March 1, 1988, of the exact location of the accumulation areas?	YES <u>NO</u> ✓
6.4.E.1.d. 9.1.F.4.	7. Does the generator record inspections in an inspection log?	YES <u>NO</u> ✓
6.4.E.1.d. 9.1.G.1.	8. Have facility personnel successfully completed a program of classroom training or on-the-job training in hazardous waste management procedures?	<u>YES</u> NO
9.1.G.2.	9. Have new employees to the facility successfully completed training mentioned above within 6 months of their employment or assignment to the facility?	<u>YES</u> NO
9.1.G.3.	10. Do personnel participate in an annual review of the initial training?	<u>YES</u> NO
9.1.G.4.a.	11. Does the facility maintain a record of:	

\* 1 DRUM of 1,1,1 Tri - Nov. 16, 1987  
will be here next week



a. job titles for personnel that are involved with hazardous waste management; and

☒ YES ☐ NO

*Needs to be updated*

b. the name of the employee filling each job?

☒ YES ☐ NO

9.1.G.4.b.

12. Does the facility have on record a written position description for each job title noted in Question #10?

YES ☒ NO

9.1.G.4.c.

13. Does the facility maintain a written description of the type and amount of introductory and continuing training for those employees involved in hazardous waste management?

☒ YES ☐ NO

9.1.G.4.d.

14. Does the facility have records to document this training?

☒ YES ☐ NO

9.2.B.

15. At the facility, is the following equipment installed:

9.2.D.

9.2.B.1.

a. An internal communications or alarm system capable of providing immediate emergency instructions to facility personnel if the hazardous waste storage area is threatened by fire or explosion?

☒ YES ☐ NO

9.2.B.2.

b. A device at the scene of hazardous waste generator operations capable of summoning emergency assistance from Police, Fire Departments, etc.?

☒ YES ☐ NO

9.2.B.3.

c. Portable fire extinguishers, fire control, spill control, and decontamination equipment?; and

☒ YES ☐ NO

9.2.B.4.

d. Water at adequate volume and pressure to supply expected fire demands, foam producing equipment, automatic sprinklers or water spray system?

☒ YES ☐ NO

9.2.C.

16. Is a record of tests and inspections of required equipment (question 14) maintained at the facility?

☒ YES ☐ NO

9.2.E.

17. Does the facility have adequate aisle space to allow the unobstructed movement of personnel and equipment during emergencies?

☒ YES ☐ NO

6.4.E.1.d.  
9.3.

18. Does the facility have an established contingency plan to deal with any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, ground water or surface water?

☒ YES ☐ NO

9.3.B.

19. Does the contingency plan contain the following elements:

9.3.B. (1,2).

a. A detailed description of emergency procedures facility personnel will implement in response to fires, explosions, or unplanned releases of hazardous waste to air, soil, and water?

☒ YES ☐ NO

9.3.B.4.

b. A listing of names, addresses, and phone numbers of the generator facility emergency response coordinators? List primary Coordinator.

YES ☒ NO

No address

Name Don Davelau

Title Plant Mgr

Telephone 481-7522

9.3.B.5.

c. A list of appropriate emergency equipment necessary to cope with emergencies at the generator facility?

☒ YES ☐ NO

9.3.B.6.

d. Does this list specify the location and physical description of each item on the list and a brief description of each item on the list, and a brief outline of its capabilities?

YES ☒ NO

No capabilities

9.3.B.6.

e. An evacuation plan for the generator facility where there is a possibility that evacuation could be necessary?

☒ YES ☐ NO

9.3.C.

f. Have copies of the contingency plan been sent to all local police departments, fire departments, hospitals and Commonwealth and local emergency response teams? List:

YES ☒ NO ☐

Fire

9.3.C.

g. Is there documentation to indicate the personnel listed above received the contingency plan?

YES ☒ NO ☐

Fire Only

9.3.F. (9,10).

h. If the contingency plan has been implemented, was a written report filed with the Executive Director and were the Executive Director and other required authorities properly notified before operations resumed?

YES ☒ NO ☐

N/A

6.4.E.4.a.

20. Does the generator have satellite accumulation areas? If yes,

☒ YES ☐ NO

a. Is the area located at or near the point of hazardous waste generation?

☒ YES

6.4.E.4.a. (1)

9.8.B.

b. Are the containers in good condition?

☒ YES ☐ NO

6.4.E.4.a. (1)

9.8.C.

c. Are the containers compatible with the waste?

☒ YES ☐ NO

6.4.E.4.a. (1)

9.8.D.1.

d. Are the containers kept closed?

☒ YES ☐ NO

6.4.E.4.a. (2)

e. Are the containers marked with the words "Hazardous Waste" or other words that identify the contents of the container?

☒ YES ☐ NO

6.5.E.4.b.

f. Are amounts in excess of those allowed being accumulated in the satellite accumulation area? If yes,

YES ☒ NO ☐

(1) Has the generator marked the amount in excess with the date the excess amount began accumulating?

YES ☐ NO ☒

(2) Has the generator either removed the excess amount within three days of the date of excess accumulations or has he complied with all other provisions for accumulation areas listed in question 5 on this checklist? Namely, has he notified the Executive Director about the location of the accumulation area? YES NO

What has the generator chosen to do? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

6.5.A.

21. Does the generator retain copies of all manifests, annual reports, and test results for at least three years? ☒ YES NO

6.5.B.

22. Has the facility submitted an annual report for the preceding calendar year? ☒ YES NO

\* Needs to fill out another.

January 1988

INSPECTION CHECKLIST FOR  
THE USE AND MANAGEMENT OF CONTAINERS

Name of Facility: Huntsman Chem  
Address: Burnbridge Rd.  
Chesapeake, VA 23320  
EPA ID Number: VAD086302866  
Facility Inspection Representative: Van White  
Title: Process Engineer  
Telephone Number: (804) 494-2500  
Inspector's Name: Lisa Clark  
Title: Public Health Engineer  
Date of Inspection: May 26, 1988

Va. Hazardous  
Waste Reg.

9.8.2.

1. Are all containers in good YES NO  
condition, i.e., not showing signs of  
leakage or corrosion or any other  
deterioration/deformation?

If not, list the storage/accumulation  
areas where there are problems and the  
type of problem.

Location	Problem
----------	---------

_____	_____
_____	_____
_____	_____
_____	_____

9.8.C.

2. Are the containers lined or made of YES NO  
materials compatible with hazardous waste  
placed into them so that the container  
will not react or otherwise be  
incompatible with (corrode, etc.) the  
hazardous wastes?

9.8.D.1.

3. Are all containers holding hazardous waste kept closed during storage? YES NO

If not, list the locations where open containers are found. \_\_\_\_\_

9.8.E.

4. Are areas where hazardous waste containers are stored inspected by the owner/operator at least once each week? YES NO

9.1.F.2.a.

9.1.F.4.

9.4.E.1.d.

5. Is an inspection log maintained? YES NO

Not weekly

9.8.F.

6. Are containers holding ignitable or reactive waste located at least 50 ft. from the facility's property line? YES NO

9.8.G.1.

7. Are incompatible wastes placed in separate containers? YES NO N/A

9.8.G.3.

8. Are storage containers holding hazardous wastes which are incompatible with nearby materials stored in containers, tanks, piles, or surface impoundments separated by dikes, berms, walls, or other devices? YES NO N/A

9.4.E.4.a.

9. For satellite accumulation areas:

a. Are there more than 55 gallons of any one type of waste present in the area? YES NO

If yes,

9.4.E.4.b

b. Have the drums been in the satellite accumulation area longer than 3 days? YES NO

If yes,

9.4.E.4.c.

c. Has the company notified the Department about the location of the storage area? YES NO

N/A

10. Comments:

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# HUNTSMAN CHEMICAL CORPORATION

## INTER-OFFICE MEMO

TO: Distribution

DATE: May 16, 1988

FROM: Herb Schrob

SUBJECT: CHESAPEAKE RECOVERED VOLATILES NOW GOING TO PERU

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Distr: M. Bruner  
P. Schwartz  
D. Daveau  
T. Wood (Woodbury)  
T. Andrewes (Rome)  
R. Gentry (Belpre)  
F. Humbert (Peru)  
F. Wagner (Peru)  
J. Sullivan  
J. Shannon  
R. Padiyar  
G. Feeney  
V. White

From this point forward, we will make it a policy of sending Chesapeake's recovered volatiles to Peru.

Previously, we introduced it into our CHIPS I plant, on site, to produce crystal polystyrene, and sent the resulting residual off-site as a "hazardous waste" for the fuels program at either Oldover Corporation or Seaboard Chemical Corporation.

The reuse of this material in Peru will save us 3.25 cents per pound (as shown on the attached calculations by George Feeney). This is partially because we will save the high cost of burning the residual from the material. Also, this material will effectively substitute for styrene monomer, which is in extremely short supply currently.